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3-PHENACYLURIDINE-DERIVED HYPNOTICS: ANTHOLOGY, STRUCTUREACTIVITY RELATIONSHIPS AND SYNTHESIS OF SEVERAL ACYCLONUCLEOSIDE ANALOGUES

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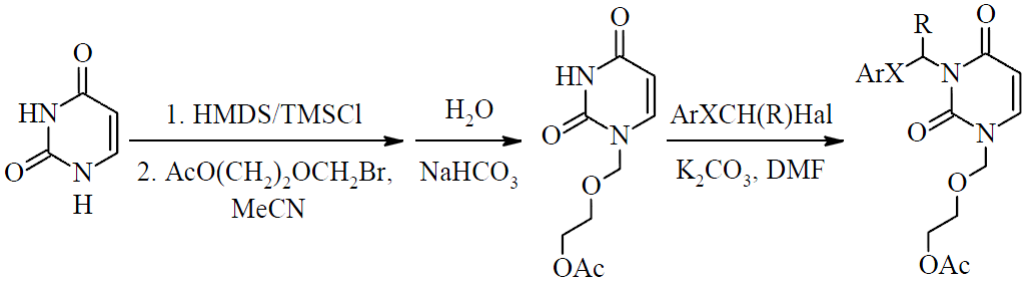
Abstract. Since the mid 1980-th a number of structurally diverse 3-phenacyluridine [1] analogues have been studied due to their soporophic properties, representing an intriguing alternative to convenient barbiturate and benzodiazepine-derived hypnotics. It was shown, that the proper stereoconfiguration of the C-2ʾ atom of the ribosyl moiety [2-4], as well, as unsubstituted C-5 uracil [5] position are crucial for their hypnotic activity. Noteworthy, that the studied compounds showed their pharmacological properties only after intracerebellar injection to mice. In order to prepare less sterically complex and more lypophilic analogues of the above, synthesis of acetates of the corresponding acyclonucleosides, carrying phenacyl, αmethylphenacyl and [(phenylsulfanyl)methyl] moieties at N^3-position of the uracil ring was accomplished:



Ar = Ph, 4-$MeOC_6H_4$, 4-FC_6H_4, R = H, X = C(O), Hal = Br; Ar = Ph, 4-$MeOC_6H_4$, R = CH_3, X = C(O), Hal = Br; Ar = 4-FC_6H_4, R = CH_3, X = S, Hal = Cl.

These substances are under *in vivo* evaluation at present.

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